REMARKS/ARGUMENTS

1. Rejection of claims 1 and 4 under 35 U.S.C. 102(b):

Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Tsunoda et al. (US 6,417,532) for reasons of record, as recited on page 2 of the above-indicated Office action.

Response:

The applicant has amended claim 1 to overcome this rejection. Claim 1 now contains the limitation "at least one solder pad soldered to the first bonding line at a point on the first bonding line between the bonding pad of the die and the trace of the circuit board for separating the first bonding line from other bonding lines." This limitation is supported in paragraphs [0021] and [0023] and in Figures 3-5. The advantage of the present invention is that solder pads are used to separate the paths of bonding lines without the need to redesign the layout of the wire bonding package.

On the other hand, Tsunoda does not teach the use of solder pads for securing a bonding line. Tsunoda only teaches the use of bonding wires for directly connecting semiconductor chips 91 to connectors in the case 94 (Fig.16, and in col.1, lines 32-36). Nowhere does Tsunoda teach that a solder pad should be soldered to the bonding wire for separating the bonding wire from other bonding wires. For this reason, the applicant submits that the currently amended claim 1 is patentable over Tsunoda. Claim 4 is dependent on claim 1, and should be allowed if claim 1 is allowed. Reconsideration of claims 1 and 4 is respectfully requested.

2. Rejection of claims 1, 2, and 8 under 35 U.S.C. 102(e):

Claims 1, 2, and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Gilliland (US 2004/0118587) for reasons of record, as recited on page 3 of the

above-indicated Office action.

Response:

As explained above, the applicant has amended claim 1 to overcome this rejection. Like Tsunoda, Gilliland also does not teach the use of a solder pad for soldering a bonding line to separate the bonding line from other bonding lines. Therefore, the currently amended claim 1 is also patentable over Gilliland. Claims 2 and 8 are each dependent on claim 1, and should be allowed if claim 1 is allowed. Reconsideration of claims 1, 2, and 8 is respectfully requested.

3. Rejection of claims 3 and 5-7 under 35 U.S.C. 103(a):

Claims 3 and 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gilliland (US 2004/0118587) in view of Chiang (US 6,744,126) for reasons of record, as recited on page 4 of the above-indicated Office action.

Response:

Chiang also does not teach the use of a solder pad for soldering a bonding line to separate the bonding line from other bonding lines. Therefore, the currently amended claim 1 is also patentable over Chiang. Furthermore, claims 3 and 5-7 are each dependent on claim 1, and should be allowed if claim 1 is allowed. Reconsideration of claims 3 and 5-7 is respectfully requested.

4. Introduction to new claims 9-17:

New claim 9 is written to specify that the bonding line is soldered to the circuit board. This limitation is supported by Figure 3 of the instant application. None of the Tsunoda, Gilliland, and Chiang references teach this limitation.

New claim 10 is based on the original claim 1, and also contains the limitation

of "a first via and a second via formed in the circuit board, the first bonding line passing through the first and second vias such that a section of the first bonding line between the first and second vias is located beneath the circuit board." This limitation is supported in paragraph [0021] and in Figures 3-5. The advantage of this structure is that vias are used to create a path for a bonding line underneath the circuit board for separating the bonding line from other bonding lines.

None of the Tsunoda, Gilliland, and Chiang references teach the use of a first and second via for allowing a section of a bonding line to be located beneath a circuit board, as is recited in new claim 10. Therefore, claim 10 is patentable over the cited prior art references.

New claims 11-17 are duplicates of original claims 2-8, and do not contain any new matter. Since claims 11-17 are each dependent on claim 10, they should be allowed if claim 10 is allowed. Acceptance of new claims 9-17 is respectfully requested.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Sincerely yours,

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Note: Please leave a message in my voice mail if you need to talk to me. The time in D.C. is 13 hours behind the Taiwan time, i.e. 9 AM in D.C. = 10 PM in Taiwan).